

A Probabilistic Tropical Cyclone Genesis Forecast Guidance Tool Utilizing Global Numerical Models

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An experimental tropical cyclone (TC) genesis forecast guidance tool has been developed as the result of a Joint Hurricane Testbed project. TC genesis events are identified in the forecast fields of three global models (GFS, UKMET, CMC). Then, logistic regression is used to generate probabilistic forecasts of TC genesis for the global model-indicated TC genesis events. The goal is to provide the National Hurricane Center Hurricane Specialist Unit (HSU) with bias-corrected probabilities of TC genesis based on the global model output. The guidance tool generates two and five day genesis probabilities every 6 hours for the North Atlantic and eastern North Pacific basins.

This talk will focus on the guidance products currently available to the HSU and the verification statistics from 2014 quasi-operational testing